Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-11.   (Canceled)

12.   (Currently Amended) An avionic system for aircraft out of route management and alarm communications comprising:

at least an avionic unit, located onboard an aircraft, provided with:

a memory unit ~~for storing~~ configured to store predefined information relating to minimum allowed flight levels within ascending and descending spatial limit cones,

~~electronic processing means for processing the received information and comparing it in real time with predefined values,~~

interfaces ~~for receiving~~ configured to receive real-time information from onboard systems and sending commands to an aircraft's autopilot to take over the control of the aircraft and return it to predefined flight levels or spatial positions,

an electronic unit configured to process the received real-time information and compare the received real-time information in real time with the stored predefined information,

~~suitable~~ sensors ~~for obtaining~~ configured to obtain data on the aircraft onboard situation,

a communication system ~~for transmitting~~ configured to transmit [[the]] a first set of parameters associated with the aircraft's onboard situation in real time to a ground control station and configured to receive from the ground control station, or from another aircraft, appropriate instructions when predetermined events occur,

wherein the avionic unit is configured to ~~able to~~ perform a collision avoidance function, to avoid collisions during aircraft flight, landing and take-off, wherein the collision avoidance function defines a monitoring stage, during which the avionic unit constantly compares [[the]] a position of the aircraft with the stored predefined information ~~and stored authorized limits~~, and a control stage, during which, if the aircraft deviates from the authorized limits, the avionic system intervenes automatically on the autopilot, immune to disabling by a pilot of the aircraft, through said interfaces, to bring back the aircraft within [[its]] the ascending and descending spatial limit cones, and

wherein the avionic unit is <u>configured to</u> ~~able to~~ perform an alarm function, wherein the alarm function defines a first, monitoring stage, during which ~~information on~~ the <u>first set of parameters associated with the aircraft's onboard situation are</u> ~~situation onboard the aircraft is~~ stored in the memory unit and [[is]] <u>are</u> not automatically transmitted to the ground control stations, and a second alarm stage which is activated ~~in cases of~~ <u>during an</u> alarm, during which <u>a second set of parameters associated with the aircraft's onboard alarm situation are</u> ~~the information generated onboard the aircraft by the avionic unit is~~ transmitted to the ground control stations for appropriate evaluation<u>, and</u>

<u>during an emergency, the avionic unit is configured to externally and/or automatically disable the collision avoidance function in accordance with predefined rules, immune to an operational input from the pilot, a hijacker, or an on-board terrorist.</u>

13.　(Currently Amended)　An avionic system according to claim 12, wherein said <u>stored predefined</u> information relates to flight paths, world's runways, orography of the land, obstacles and the predefined values comprise flight paths and altitudes or flight levels.

14.　(Currently Amended)　An avionic system according to claim 13, wherein <u>where</u> the ~~aircraft~~ sensors comprise surveillance video cameras and miniature transmitters, wearable by the flight crew, ~~in order~~ <u>configured</u> to obtain <u>the first and the second set of parameters</u> ~~information for the avionic unit~~.

15.　(Currently Amended)　An avionic system according to claim 14, wherein the video cameras <u>are configured to establish</u> ~~comprise means for establishing~~ whether [[they]] <u>the video cameras</u> have been disabled, damaged, or are malfunctioning.

16.　(Currently Amended)　An avionic system according to claim 15, wherein the sensors comprise heart rate monitors for the ~~pilots~~ <u>pilot,</u> ~~to be~~ <u>the heart rate monitors further</u> connected to the avionic unit.

17.　(Canceled)

18.　(Currently Amended)　An avionic system according to claim 15 comprising switches located in specific points of the aircraft available to crew and passengers

configured to obtain the first and second set of parameters ~~information for the avionic unit~~, and a cockpit automatic locking system.

19.   (Currently Amended) An avionic system as claimed in claim 18, comprising ~~means for encrypting and coding~~ an encryption system and a coding system configured to encrypt and code, respectively, the signals exchanged between the aircraft and the ground control station, wherein the encrypted and coded signals are resistant to jamming and to interference ~~not interfering~~ with [[the]] radio band communications.

20.-21. (Canceled)

22.   (Currently Amended) A ground control station ~~suitable for interfacing~~ configured to interface with an avionic system comprising at least an avionic device, placed onboard an aircraft, with a memory unit, electronic processing ~~means~~ device, interfaces, sensors, and a communication system, ~~wherein the avionic device is able to perform a collision avoidance function and an alarm function,~~ the ground control station comprising:

at least a computer for processing data received from said avionic system;

a transmission-reception radio system;

an encrypting and/or coding system; and

an audio-visual communications system; and

wherein the ground control station is configured to carry ~~comprises means for carrying~~ out a collision avoidance function, to avoid collisions during aircraft flight, landing and take-off, the collision avoidance function defining a monitoring stage, during which the unit constantly compares the position of the aircraft with predefined and stored authorized limits and a control stage, during which if the aircraft deviates from the authorized limits the unit intervenes automatically on the autopilot, through said interfaces, to take back the aircraft to its spatial limit, and

wherein the ground control station comprises an alarm system configured to carry out ~~means for carrying out~~ an alarm function, wherein the alarm function defines a monitoring stage, during which a first set of parameters associated with the aircraft's onboard situation are ~~information on the situation onboard the aircraft is~~ stored in the memory unit and are not automatically transmitted to the ground control stations, and an alarm stage which is activated in cases of alarm, during which ~~information~~ a second set of parameters associated with the aircraft's onboard situation generated onboard the aircraft by

the avionic unit are transmitted [[the]] to the ground control stations for appropriate evaluation, and

during an emergency, the avionic unit in communication with the ground control station is configured to externally and/or automatically disable the collision avoidance function in accordance with predefined rules, immune to an operational input from a hijacker or a terrorist.

23.   (Currently Amended) A method for aircraft out of route management wherein there are provided an avionic system comprising at least an avionic unit, fitted onboard an aircraft, with a memory unit, a processing device electronic processing means, interfaces, sensors, and a communication system, wherein the avionic unit is [[able]] configured to perform a collision avoidance function and an alarm function, and a ground station comprising at least a computer, a transmission-reception radio system, an encrypting and/or coding system, an audio-visual communications system and means for carrying out a collision avoidance and an alarm function, the method comprising the following steps:

defining first data for a collision avoidance function and loading said first data into the avionic unit;

defining second data for an alarm function and loading said second data into the avionic unit;

defining third data for at least one ground control station and loading said third data into the station;

defining interfaces;

defining communication channels and their respective properties of the communication channels;

defining sensors, transmitters, switches, and video cameras;

determining operating logics of the collision avoidance function and their implementation in the avionic unit;

determining operating logics of the alarm function and their implementation in the avionic unit;

determining operating logics of the ground control station and loading them into the station;

comparing the position of the aircraft constantly with predefined and stored authorized limits intervening automatically on the autopilot to take the aircraft to its

spatial limit through the interfaces when the aircraft deviates from the authorized limits storing the situation of the aircraft onboard in the memory unit and not automatically transmitting to the ground control stations; [[and]]

transmitting [[said]] information generated onboard to the ground control stations for appropriate evaluation when ~~a second~~ an alarm state is activated in cases of an alarm; and

during an emergency, the avionic unit externally and/or automatically disabling the collision avoidance function in accordance with predefined rules, immune to an operational input from the pilot, a hijacker, or an on-board terrorist.

24. (Currently Amended) Method according to claim 23 wherein the ~~electronic~~ processing device ~~means process receive~~ processes the generated information and ~~compare it~~ compares the information generated onboard in real time with data referring to predefined flight paths and allowed altitudes or flight levels, [[and]] wherein the interfaces receive flight information from onboard systems and send commands to the aircraft's autopilot to take over the control of the aircraft and bring [[it]] the aircraft back to predefined altitudes or flight levels or spatial positions, and wherein the sensors obtain data on the situation onboard the aircraft, and wherein the communication ~~means~~ system and the connecting interfaces transmit the generated information relating to onboard situation in real time to the ground control stations and receive appropriate instructions from the ground control station or from another aircraft when predetermined events occur.

25 (New) The avionic system of claim 12, wherein the stored predefined information comprises levels and spatial positions indicative of world's minimum allowed flight limits and airports' allowed flight limits.

26. (New) The avionic system of claim 12, wherein the sensors are installed on the aircraft and comprise scanning sensors configured to detect presence of firearms, narcotics, and poisonous gases, and wherein the sensors are accessible and wearable by one or more occupants of the aircraft.

27. (New) The avionic system of claim 12, wherein the emergency includes a hijacking or a terrorist attack.

28.   (New) The avionic system of claim 12, wherein the communication system is configured to send messages including disabling codes to a ground control station and to receive disabling codes from the ground control station.

29.   (New) The method of claim 24, wherein the generated information comprises levels and spatial positions indicative of world's minimum allowed flight limits and airports' allowed flight limits.

30.   (New) The method of claim 24, wherein the sensors are installed on the aircraft and comprise scanning sensors configured to detect presence of firearms, narcotics, and poisonous gases, and wherein the sensors are accessible and wearable by one or more occupants of the aircraft.

31.   (New) The method of claim 24, wherein the emergency includes a hijacking or a terrorist attack.

32.   (New) The method of claim 24, wherein the communication system is configured to send messages including disabling codes to a ground control station and to receive disabling codes from the ground control station.